

What is claimed is:

1 1. A signaling medium, comprising:
2 a first plurality of spaced apart optical signal media; and
3 a first plurality of electrical signal conductors, wherein at least one of the
4 first plurality of electrical signal conductors is disposed between a selected first one
5 and a selected second one of the first plurality of spaced apart optical signal media.

1 2. The signaling medium of claim 1, further comprising:
2 an electrically conductive shield surrounding the first plurality of spaced
3 apart optical signal media and the first plurality of electrical signal conductors, and
4 spaced apart from the first plurality of electrical signal conductors.

1 3. The signaling medium of claim 1, further comprising:
2 a first electrically conductive shield surrounding the first plurality of spaced
3 apart optical signal media and the first plurality of electrical signal conductors, and
4 spaced apart from the first plurality of electrical signal conductors;
5 a second plurality of spaced apart optical signal media;
6 a second plurality of electrical signal conductors, wherein at least one of the
7 second plurality of electrical signal conductors is disposed between a selected first
8 one and a selected second one of the second plurality of spaced apart optical signal
9 media; and
10 a second electrically conductive shield surrounding the second plurality of
11 spaced apart optical signal media and the second plurality of electrical signal
12 conductors, the second electrically conductive shield being spaced apart from the
13 second plurality of electrical signal conductors and electrically coupled to the first
14 electrically conductive shield.

1 4. The signaling medium of claim 1, wherein each one of the first plurality of
2 optical signal media has a longitudinal axis and a cross-sectional area, wherein the
3 longitudinal axis of each one of the first plurality of optical signal media lies

4 substantially parallel to the longitudinal axis of every other one of the first plurality
5 of optical signal media, and wherein the cross-sectional area of each one of the first
6 plurality of optical signal media lies within a first substantially circular area.

1 5. The signaling medium of claim 4, wherein each one of the first plurality of
2 electrical signal conductors has a longitudinal axis and a cross-sectional area,
3 wherein the longitudinal axis of each one of the first plurality of electrical signal
4 conductors lies substantially parallel to the longitudinal axis of every other one of
5 the first plurality of electrical signal conductors, and wherein the cross-sectional
6 area of each one of the first plurality of electrical signal conductors lies within a
7 second substantially circular area.

1 6. The signaling medium of claim 5, wherein a diameter of the second
2 substantially circular area is less than a diameter of the first substantially circular
3 area.

1 7. The signaling medium of claim 1, wherein each one of the first plurality of
2 electrical signal conductors is disposed between a selected first one and a selected
3 second one of the first plurality of spaced apart optical signal media.

1 8. A connector, comprising:
2 a first plurality of spaced apart optical signal terminations; and
3 a first plurality of electrical signal terminations, wherein at least one of the
4 first plurality of electrical signal terminations is disposed between a selected first
5 one and a selected second one of the first plurality of spaced apart optical signal
6 terminations.

1 9. The connector of claim 8, further comprising:
2 an electrically conductive shield termination spaced apart from the first
3 plurality of electrical signal terminations.

1 10. The connector of claim 8, comprising:
 2 a first electrically conductive shield termination spaced apart from the first
 3 plurality of electrical signal terminations;
 4 a second plurality of spaced apart optical signal terminations;
 5 a second plurality of electrical signal terminations, wherein at least one of
 6 the second plurality of electrical signal terminations is disposed between a selected
 7 first one and a selected second one of the second plurality of spaced apart optical
 8 signal terminations; and
 9 a second electrically conductive shield termination spaced apart from the second
 10 plurality of electrical signal terminations.

1 11. A signaling assembly, comprising:
 2 a connector;
 3 a first plurality of spaced apart optical signal media terminating in the
 4 connector; and
 5 a first plurality of electrical signal conductors terminating in the connector, wherein
 6 each one of the first plurality of electrical signal conductors is disposed between a
 7 selected first one and a selected second one of the first plurality of spaced apart
 8 optical signal media.

1 12. The signaling assembly of claim 11, further comprising:
 2 an electrically conductive shield terminating in the connector, wherein the
 3 electrically conductive shield surrounds the first plurality of spaced apart optical
 4 signal media and the first plurality of electrical signal conductors, and is spaced
 5 apart from the first plurality of electrical signal conductors.

1 13. The signaling assembly of claim 11, further comprising:
 2 a first electrically conductive shield terminating in the connector, wherein
 3 the first electrically conductive shield surrounds the first plurality of spaced apart

4 optical signal media and the first plurality of electrical signal conductors, and is
5 spaced apart from the first plurality of electrical signal conductors;
6 a second plurality of spaced apart optical signal media terminating in the
7 connector;
8 a second plurality of electrical signal conductors terminating in the
9 connector, wherein each one of the second plurality of electrical signal conductors is
10 disposed between a selected first one and a selected second one of the second
11 plurality of spaced apart optical signal media; and
12 a second electrically conductive shield terminating in the connector and
13 surrounding the second plurality of spaced apart optical signal media and the second
14 plurality of electrical signal conductors, the second electrically conductive shield
15 being spaced apart from the second plurality of electrical signal conductors and
16 electrically coupled to the first electrically conductive shield.

1 14. A circuit board, comprising:
2 a first plurality of spaced apart optical signal terminations; and
3 a first plurality of electrical signal terminations, wherein at least one of the
4 first plurality of electrical signal terminations is disposed between a selected first
5 one and a selected second one of the first plurality of spaced apart optical signal
6 terminations.

1 15. The circuit board of claim 14, further comprising:
2 a connector in optical communication with the first plurality of spaced apart
3 optical signal terminations and in electrical communication with the first plurality of
4 electrical signal terminations.

1 16. The circuit board of claim 15, further comprising:
2 a plurality of optical transceivers capable of being in optical communication
3 with the first plurality of spaced apart optical signal terminations.

1 17. The circuit board of claim 14, further comprising:
 2 an electrically conductive shield termination spaced apart from the first
 3 plurality of electrical signal terminations.

1 18. The circuit board of claim 14, further comprising:
 2 a first electrically conductive shield termination spaced apart from the first
 3 plurality of electrical signal terminations;
 4 a second plurality of spaced apart optical signal terminations;
 5 a second plurality of electrical signal terminations, wherein at least one of
 6 the second plurality of electrical signal terminations is disposed between a selected
 7 first one and a selected second one of the second plurality of spaced apart optical
 8 terminations; and
 9 a second electrically conductive shield termination spaced apart from the
 10 second plurality of electrical signal terminations and electrically coupled to the first
 11 electrically conductive shield termination.

1 19. A signal communication system, comprising:
 2 a first circuit board including a first plurality of spaced apart optical signal
 3 terminations and a first plurality of electrical signal terminations, wherein at least
 4 one of the first plurality of electrical signal terminations is disposed between a
 5 selected first one and a selected second one of the first plurality of spaced apart
 6 optical signal terminations;
 7 a second circuit board including a second plurality of spaced apart optical
 8 signal terminations and a second plurality of electrical signal terminations, wherein
 9 at least one of the second plurality of electrical signal terminations is disposed
 10 between a selected first one and a selected second one of the second plurality of
 11 spaced apart optical signal terminations; and
 12 a signaling medium including a first plurality of spaced apart optical signal
 13 media capable of being in optical communication with the first and second plurality
 14 of optical signal terminations and a first plurality of electrical signal conductors

15 capable of being in electrical communication with the first and second pluralities of
16 electrical signal terminations, wherein at least one of the first plurality of electrical
17 signal conductors is disposed between a selected first one and a selected second one
18 of the first plurality of spaced apart optical signal media.

1 20. The signal communication system of claim 19, further comprising:
2 an electrically conductive shield surrounding the first plurality of spaced
3 apart optical signal media and the first plurality of electrical signal conductors, and
4 spaced apart from the first plurality of electrical signal conductors.

1 21. The signal communication system of claim 19, further comprising:
2 a first electrically conductive shield surrounding the first plurality of spaced
3 apart optical signal media and the first plurality of electrical signal conductors, and
4 spaced apart from the first plurality of electrical signal conductors;
5 a second plurality of spaced apart optical signal media;
6 a second plurality of electrical signal conductors, wherein at least one of the
7 second plurality of electrical signal conductors is disposed between a selected first
8 one and a selected second one of the second plurality of spaced apart optical signal
9 media; and
10 a second electrically conductive shield surrounding the second plurality of
11 spaced apart optical signal media and the second plurality of electrical signal
12 conductors, the second electrically conductive shield being spaced apart from the
13 second plurality of electrical signal conductors and electrically coupled to the first
14 electrically conductive shield.

1 22. The signal communication system of claim 19, wherein each one of the first
2 plurality of optical signal media has a longitudinal axis and a cross-sectional area,
3 wherein the longitudinal axis of each one of the first plurality of optical signal
4 media lies substantially parallel to the longitudinal axis of every other one of the
5 first plurality of optical signal media, and wherein the cross-sectional area of each

6 one of the first plurality of optical signal media lies within a first substantially
7 circular area.

1 23. The signal communication system of claim 22, wherein each one of the first
2 plurality of electrical signal conductors has a longitudinal axis and a cross-sectional
3 area, wherein the longitudinal axis of each one of the first plurality of electrical
4 signal conductors lies substantially parallel to the longitudinal axis of every other
5 one of the first plurality of electrical signal conductors, and wherein the cross-
6 sectional area of each one of the first plurality of electrical signal conductors lies
7 within a second substantially circular area.

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